

Remarks/Arguments:

The pending claims are 1-4, 6-8, 10-18. Claims 5, 9 have been canceled. Claims 1, 3, 4, 6, 8 have been amended. Claims 15-18 have been added. Figure 6 has been amended because reference number 55 had been inadvertently omitted. The amendments to the claims, the newly added claims, and the change to Figure 6 have not introduced new matter.

The drawings have been objected to because the Office Action contends that $2n$ rotor magnets combined with $3n$ stator poles are not shown for the embodiments of claims 5 and 6.

Since claim 5 has been canceled, any objection to the drawings based on claim 5 is moot. Claim 6 has been amended so that it now depends from claim 1. Amended claim 1 and amended claim 6 are shown, for example, in Figures 1 and 3.

On page 3 of the Office Action, the USPTO contends that in Figure 5 there are 16 magnets comprising eight poles and that therefore $n=8$. The Office Action is wrong. Instead, in Figure 5, there are 8 magnets having two parts each, the two parts being 39a and 39b. This is explained on page 15, line 21 to page 16, line 2 which refers to each permanent magnet 39 being composed of a forward portion 39a and a backward portion 39b. Since there are 8 magnets, $n=4$, resulting in $2n$ (or 8) permanent magnets and $3n$ (or 12) teeth.

With respect to Figure 6, claim 15 has been added to cover that figure. Claim 15 is supported by Figure 6 and the description of Figure 6 on page 17, line 16-page 19, line 3.

In view of the cancellation of claim 5, the amendment of claim 6, and the explanations of Figures 5 and 6, the objections to the drawings are moot and applicants request that the objections to the drawings be withdrawn.

Claims 5 and 9 have been rejected under 35 U.S.C. § 112, first paragraph. Since claims 5 and 9 have been canceled, those rejections are moot.

Claims 3 and 8 have been rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Since these claims have been amended, applicants request that this rejection be withdrawn.

Application No. 09/998,534
Amendment Dated May 16, 2003
Reply to Office Action of February 19, 2003

MAT-7941US1

Amendments to the Drawings:

The attached sheet of drawings includes changes to Figure 6. This sheet replaces the original sheet.

Attachment

Claim 6 has been rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification. Claim 6 has also been rejected under 35 U.S.C. § 112, second paragraph, because a particular recitation was deemed to be indefinite. Since claim 6 has been amended, applicants request that these rejections be withdrawn.

Claims 1-2, 4 and 11-14 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Nishimura (U.S. Patent No. 3,634,873) in view of Kawamoto et al. (U.S. Patent No. 4,954,736). Claim 1 has been amended to recite, in part

a stator core having a plurality of annularly combined core elements. . .

* * * * *

a sectional form of at least one of the plurality of permanent magnets having a middle section being nearer to the rotor than an edge section of the permanent magnet.

The recitation about the stator core is supported by page 8, line 15- page 9, line 10. The recitation about the permanent magnets is supported by page 12, lines 4-7 and Figure 3.

Nishimura discloses a stator core of six salient pole sections 22a, 22b, 22c, 22d, 22e, 22f. (col. 3, lines 34-35). Nishimura does not disclose or suggest "a stator core having a plurality of annularly combined core elements" as recited in amended claim 1. With respect to the rotor, the Office Action concedes that Nishimura does not disclose a plurality of $2n$ permanent magnets where $n=2$. In addition, Nishimura does not disclose or suggest a plurality of permanent magnets that, in sectional form, have "a middle section being nearer to the rotor than an edge section."

Kawamoto does not disclose anything about a stator and does not suggest a "stator core having a plurality of annularly combined core elements with a plurality of $3n$ teeth." Although Kawamoto does disclose four permanent magnet segments 17a-17d, it does not disclose or suggest "a sectional form of at least one of the plurality of permanent magnets having a middle section being nearer to the center of the rotor than an edge section of the permanent magnet." Instead, Figure 2 shows that the middle and edge of each of the permanent magnets are the same distance from rotor shaft 11.

Accordingly, neither Nishimura nor Kawamoto disclose or suggest all of the features recited in amended claim 1. Consequently, amended claim 1 is not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Nishimura in view of Kawamoto.

Claims 2 and 11-14 depend from amended claim 1. Therefore, these claims are also not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Nishimura in view of Kawamoto for at least the same reasons that amended claim 1 is not subject to rejection.

Claim 4 has been amended so that it now depends from amended claim 1. Therefore, amended claim 4 is also not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Nishimura in view of Kawamoto for at least the same reasons that amended claim 1 is not subject to rejection.

Claims 1-3 and 11 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Mashita (JP 9-19120) in view of Nishimura. Mashita does not disclose or suggest "a stator core having a plurality of annularly combined core elements." Mashita also does not disclose or suggest a rotor incorporating a plurality of magnets where "a sectional form of at least one of the plurality of permanent magnets having a middle section being nearer to the center of the rotor than an edge section of the permanent magnet." The permanent magnets 3 in Mashita are circular and all parts of the permanent magnets are the same distance from the center of the rotor. As shown above, Nishimura also does not disclose important features of amended claim 1. Accordingly, amended claim 1 is not subject to rejection under 35 U.S.C. §103(a) as unpatentable over Mashita in view of Nishimura. Since claims 2-3, 11 depend from claim 1, they, too, are not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Mashita in view of Nishimura for at least the same reasons that amended claim 1 is not subject to rejection.

Claim 5 has been rejected under 35 U.S.C. § 103(a) as unpatentable over Nishimura in view of Kawamoto and Baumann. Since claim 5 has been canceled, this rejection is moot.

Claims 7-8 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Nishimura and Kawamoto and further in view of Fukuda et al. (U.S. Patent No. 5,553,465). These claims depend from amended claim 1. As shown above, neither Nishimura nor Kawamoto disclose or suggest all of the features of amended claim 1. Fukuda et al. also does not disclose or suggest all of the features of amended claim 1. Fukuda et al. "relates to a lubricant composition

miscible in hydrofluorocarbon and hydrochlorofluorocarbon refrigerants and a process for using such a lubricant composition in refrigerator compressors and refrigerator compressor built-in refrigeration apparatus." (col. 1, lines 11-16). Figure 1 of Fukuda et al. shows a rotary refrigerant compressor. (col. 3, lines 51-52). Even though the compressor has a motor 22 comprising a stator 19, a rotor 20, and a rotating shaft 4A (col. 15, lines 1-4), Figure 1 does not disclose or suggest the stator features and rotor features recited in amended claim 1. Therefore, amended claim 1 is not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Fukuda et al. Since none of the references, individually or in combination, disclose or suggest all of the features of amended claim 1, dependent claims 7-8 are also not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Nishimura and Kawamoto and further in view of Fududa.

Claim 9 has been rejected under 35 U.S.C. § 103(a) as unpatentable over Nishimura and Kawamoto and further in view of Murakami et al. Since claim 9 has been canceled, this rejection is moot.

Claim 10 has been rejected under 35 U.S.C. § 103(a) as unpatentable over Nishimura and Kawamoto and further in view of Uchida et al. (U.S. Patent No. 5,763,978). Claim 10 depends from amended claim 1. Uchida "relates to an improvement of an insulating member adapted to be disposed in each of a plurality of slots in a stator core of a motor." (col. 1, lines 5-7). Uchida does not disclose or suggest all of the stator features and rotor features recited in amended claim 1. Therefore, amended claim 1 is not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Uchida. Since none of the references, individually or in combination, disclose or suggest all of the features of amended claim 1, dependent claim 10 is not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Nishimura and Kawamoto and further in view of Uchida.

Claims 16-18 have been added. Claim 16 is supported by the embodiments shown in Figures 1 and 5. Claim 17 is supported by page 8, line 20 to page 9, line 9. Claim 18 is supported by page 19, lines 13 to 17.

The prior art made of record and not relied upon is not considered any more pertinent to applicants' disclosure than that already cited.

For all the foregoing reasons, applicants respectfully solicit allowance of claims 1-4, 6-8, 10-18.

Respectfully submitted,

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SW:kc

Attachment: Figure 6

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